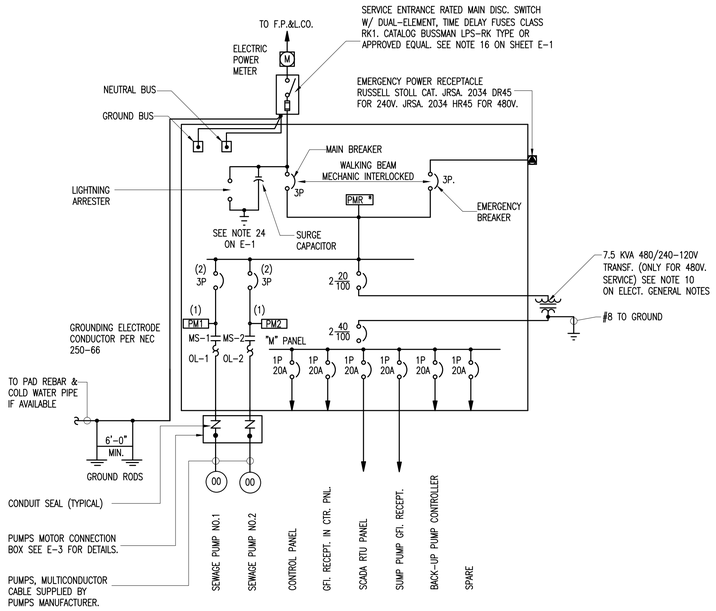


(1) THREE PHASE VOLTAGE MONITORS. INSTALL 2 AMPS. FAST ACTING FUSES IN SERIES WITH EACH OF THE INPUTS.
(2) PROVIDE MOTOR CIRCUIT BREAKERS WITH (MCB) AUXILIARY CONTACTS

ONE LINE DIAGRAM

N.T.S.

ALL OVERCURRENT PROTERCTION DEVICES SHALL BE RATED FOR THE AVIALABLE FAULT CURRENT

UNLESS DIRECTED BY MD-WASD, DESIGN USING STANDARDS ON SHEET E-2 AND E-3

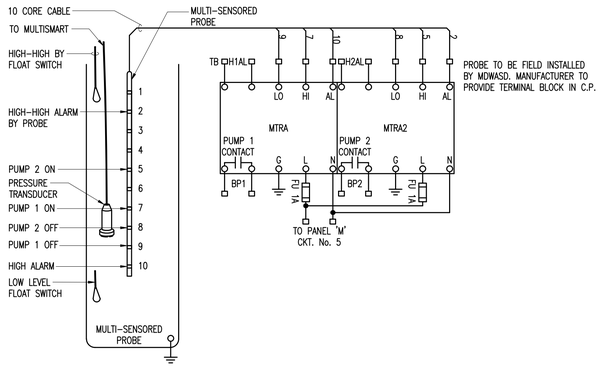
THESE ARE NOT CONSTRUCTION DRAWINGS. THE INFORMATION HEREIN CONTAINED SHALL ONLY BE USED AS GENERAL GUIDELINE OF THE INTENDED OPERATION AND FUNCTIONS AND SHALL NOT BE CONSTRUED AS ALL INCLUSIVE. ENGINEERS OF RECORD AND CONSULTANTS USING THESE GUIDELINES SHALL VERIFY AND MODIFY ANY REQUIREMENT NOT NECESSARILY SHOWN AS MAY BE REQUIRED BY ANY AND ALL APPLICABLE CODES AND STANDARDS.

FLOOR PLAN:
SHOW/STATE ALL ELECTRICAL EQUIPMENT AND APPURTENANCES IN COMPLIANCE WITH NEC. 110-16.
PROVIDE CIRCUIT NUMBERS AS RELATING TO PANEL SCHEDULE. CONDUCTORS AND CONDUIT SIZE.
SPECIFY HAZARDOUS LOCATIONS.

SITE PLAN:
ALSO, PROVIDE A SITE PLAN, SCALE: 1"=10'-0", IF THERE IS ANY IN THE SET OF DRAWINGS, PROVIDING LOCATIONS OF BUILDINGS, STRUCTURES, PUMP STATION, POWER SERVICE POINT OR TRANSFORMER LOCATION, SERVICE COMPONENTS AND CONDUCTORS.

ELECTRICAL SITE PLAN

SCALE: 1"=10'



PROBE AND BACK-UP SYSTEM DIAGRAM

N.T.S.

NOTES:

1- HANG PROBE IN TURBULENT AREA OF WET WELL. PROVIDE MEANS TO REMOVE PROBE TO BE CLEANED WITHOUT ENTERING THE WET WELL.
2- DO NOT INSTALL THE PROBE IN A STAGNANT AREA OR CORNER WHERE GREASE AND DEBRIS MAY COLLECT. STILLING WELLS ARE NOT SUGGESTED.
3- ENSURE A MINIMUM OF 12" CLEARANCE FROM ANY SURFACE.
4- ENSURE BOTTOM OF PROBE IS 1/2" ABOVE MINIMUM BACK-UP PUMPING LEVEL.
5- PROBE START AND STOP POINTS SHALL BE SET ABOVE AND BELOW MULTISMART CONTROL RANGE.
6- THE PROBE CABLE MUST BE BURIED (OUTSIDE THE WELL) IN A SEPARATE METAL CONDUIT AND SHIELDED FOR CORRECT OPERATION OF THE LEVEL-SENSING DEVICE
7- MOST PITS ARE ADEQUATELY EARTHED OR GROUNDED AND DO NOT REQUIRE ANY REFERENCE RODS, HOWEVER PVC OR FIBRE GLASS TANKS WITHOUT PUMPS OR METALLIC GROUNDED PIPE REQUIRE REFERENCE RODS.
8- PROBE CABLE SHALL BE RUN IN A SEPARATE CONDUIT AWAY FROM ANY HIGH VOLTAGE SIGNALS.
9- PROVIDE PROBE MODEL CONSIDERING WET WELL DEPTH.

AVAILABLE 3-PHASE FAULT CURRENT AT THE TRANSFORMER SECONDARY TERMINALS IS ESTIMATED TO BE _____ RMS SYMMETRICAL AMPS AND DOES NOT INCLUDE: CONSIDERATION FOR ANY MOTOR CONTRIBUTION AND/OR FAULT CURRENT ASYMMETRY

MISCELLANEOUS LOAD PANEL 'M'

CKT.	DESCRIPTION	VA LOAD
1	CONTROLS	400
2	RECEPTACLE	360
3	SACADA RTU PANEL	750
4	SUMP PUMP	1200
5	BACK UP P'CONTROLLER	180
6	SPARE	
7		
	CONNECTED VA	2950

LOAD CALCULATION

2-. 00 H.P. SEWAGE PUMPS 00 AMPS.
MISCELLANEOUS BASE LOAD 00 AMPS.
25% OF LARGEST MOTOR 00 AMPS.
TOTAL 00 AMPS.
PROVIDE SERVICE SIZE: 00

BREAKERS, WIRING AND CONDUIT SCHEDULE

VOLTS & PHASE	MOTOR HP	MOTOR AMP CODE	START SIZE	MOTOR CIRCUIT PROTECT. AMPS	MOTOR WIRE THWN CU. NOTE 13 ON E-5	SIZED FOR TWO PUMP STATIONS		
						MAIN & STAND-BY BREAKERS	SERVICE	
							GROUNDING	POWER
240-1ϕ	5	28	2	60	3#8 IN 1 1/2"	100	#6	3#2, IN 1-1/2"C
240-1ϕ	7.5	40	2	80	2#6 & 1#8G. IN 1-1/2"	150	#6	3#1/0, IN 2"C
240-3ϕ	5	15.2	1	30	4#10 IN 1 1/2'	100	#6	4#2, IN 1-1/2"C
240-3ϕ	7.5	22	2	50	4#8 IN 1 1/2"	100	#6	4#2, IN 1-1/2"C
240-3ϕ	10	28	2	50	3#6 & 1#8G. IN 1-1/2"	100	#6	4#2, IN 1-1/2"C
240-3ϕ	15	42	3	100	3#4 & 1#8G. IN 2"	150	#6	4#1/0, IN 2"C
480-3ϕ	5	7.6	1	15	4#12 IN 1 1/2"	70	#6	4#3, IN 1-1/2"C
480-3ϕ	7.5	11	1	30	4#12 IN 1 1/2"	70	#6	4#3, IN 1-1/2"C
480-3ϕ	10	14	2	30	4#10 IN 1 1/2"	70	#6	4#3, IN 1-1/2"C
480-3ϕ	15	21	2	50	4#10 IN 1 1/2"	70	#6	4#3, IN 1-1/2"C
480-3ϕ	20	27	2	50	4#8 IN 2"	125	#6	4#1, IN 2"C
480-3ϕ	25	34	3	50	3#6 & 1#8G. IN 2"	150	#6	4#1/0, IN 2"C
480-3ϕ	30	40	3	100	3#6 & 1#8G. IN 2"	200	#4	4#3/0, IN 2"C
480-3ϕ	40	52	3	100	3#4 & 1#6G. IN 2"	200	#4	4#3/0, IN 2"C
480-3ϕ	50	65	4	100	3#3 & 1#6(G) IN 2"	200	#4	4#3/0, IN 2"C
480-3ϕ	60	77	4	150	3#2 & 1#6(G) IN 2"	225	#2	4#4/0, IN 2 1/2"C

SCOPE OF WORK

DESCRIBE ELECTRICAL WORK
1-. START TO FINISH
2-. TEMPORARY SERVICE
3-. DEMOLITION AND CLEAN-UP.

MIAMI-DADE COUNTY
Delivering Excellence Every Day

WATER AND SEWER DEPARTMENT
ENGINEERING DIVISION
3071 SW 38TH AVENUE
MIAMI, FLORIDA 33146-2221
305-665-7471
miamidade.gov

PUMP STATION No. 0000
FACILITY OFFICIAL ADDRESS, FLORIDA 33100-0000
TYPICAL SUBMERSIBLE SEWAGE PUMP STATION (WASD DESIGN STANDARD UPDATE 2012)
ELECTRICAL SITE PLAN, ONE LINE DIAGRAM AND WIRING SCHEDULE

DRAWING HISTORY

RELEASED FOR		DATE	BY
REVIEW 30%			
REVIEW 70%			
REVIEW 100%			
PERMIT			

REVISIONS

No.	DESCRIPTION	DATE	BY

APPROVALS

CHIEF ENGINEER:
SECTION HEAD:
PROJECT MGR.:
DESIGNED: X.X.X. CHECKED: X.X.X.
DRAWN: X.X.X. FINAL CHECK: X.X.X.

XXXXXXX XXXXX
XXXXXXXXXX Engineer
State of Florida – License No. 00000
Date:_____

ER No. : S000000 PCTS No. : 00000
FILE NAME: 00000E02.DWG
DATE: APR. 06, 2012 SCALE: AS NOTED

SHEET E-2B-1
DWG. No. S-00000-A